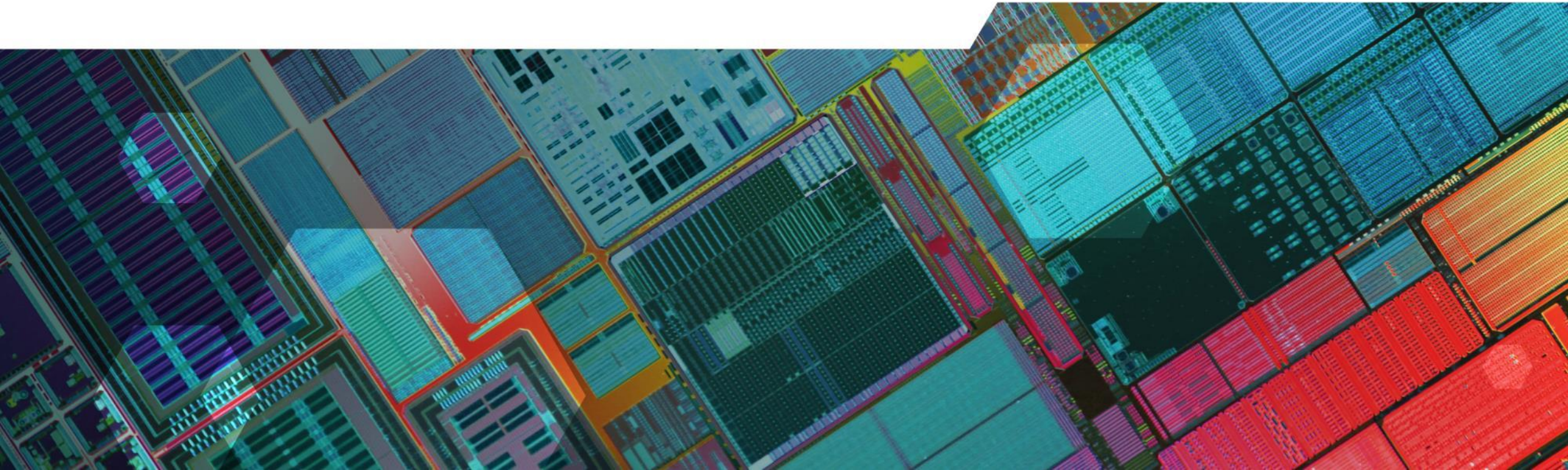




SEMI Workforce Development and Diversity Program

Emir Demircan | SEMI Europe

28 March 2019, Brussels



Presentation Outline

SEMI Europe
Workforce
Development &
Diversity Program

SEMI at a Glance

Semiconductors and talent pipeline

SEMI Workforce Development Initiative

Summary

SEMI Connects to Advance a Global Industry

Mission

SEMI provides industry stewardship and engages our members to advance the interests of the **global electronics manufacturing supply chain**.

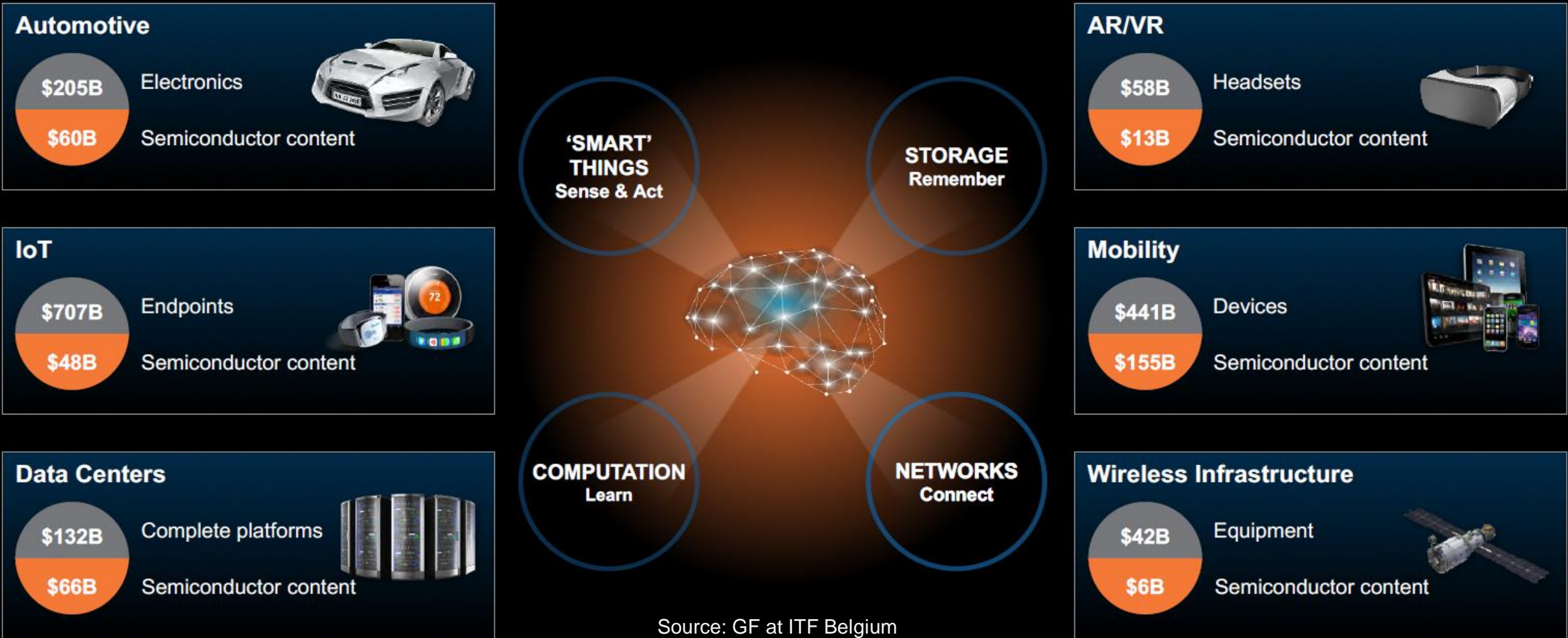
Vision

SEMI promotes the development of the global electronics manufacturing supply chain and positively influences the **growth and prosperity of its members**. SEMI advances the mutual business interests of its membership and promotes a free and open global marketplace.

SEMI is the place to connect, collaborate, and solve problems in a pre-competitive forum. Platforms for regions and special interest groups are connected to global common interests.



Global Semiconductor Market Overview: Drivers of growth



Source: GF at ITF Belgium

All data, except for 5G, refer to 2020. Sources: Based on various internal and public sources.

The Talent Pipeline

Problem Statement:

- Industry prosperity depends on a high skilled, innovative workforce.
- Increased demand for talent and challenges with the supply of workers require active workforce development initiatives.

Then (2000)



- STEM Education & Awareness

Now (2019)



- Diversity
- Retention
- Industry Perception / Image
- Aging workforce
- Competition
- New Talent Pools
- University Connections

SEMI – Deloitte Global Workforce Study

Discovery interviews & major issues

- Industrial transformation & increased competition
- Demand-driven industry, customization, cultural shift
- Aging workforce (average age; 45-50+)
- Sharing knowledge across generations/cultures
- Managing global & virtual teams
- Mobility / commuting
- Diversity & inclusion

ADVANTEST

APPLIED MATERIALS

ASM

ASML

brewer science

GLOBALFOUNDRIES

KLA Tencor

Lam RESEARCH

Micron

Nordson

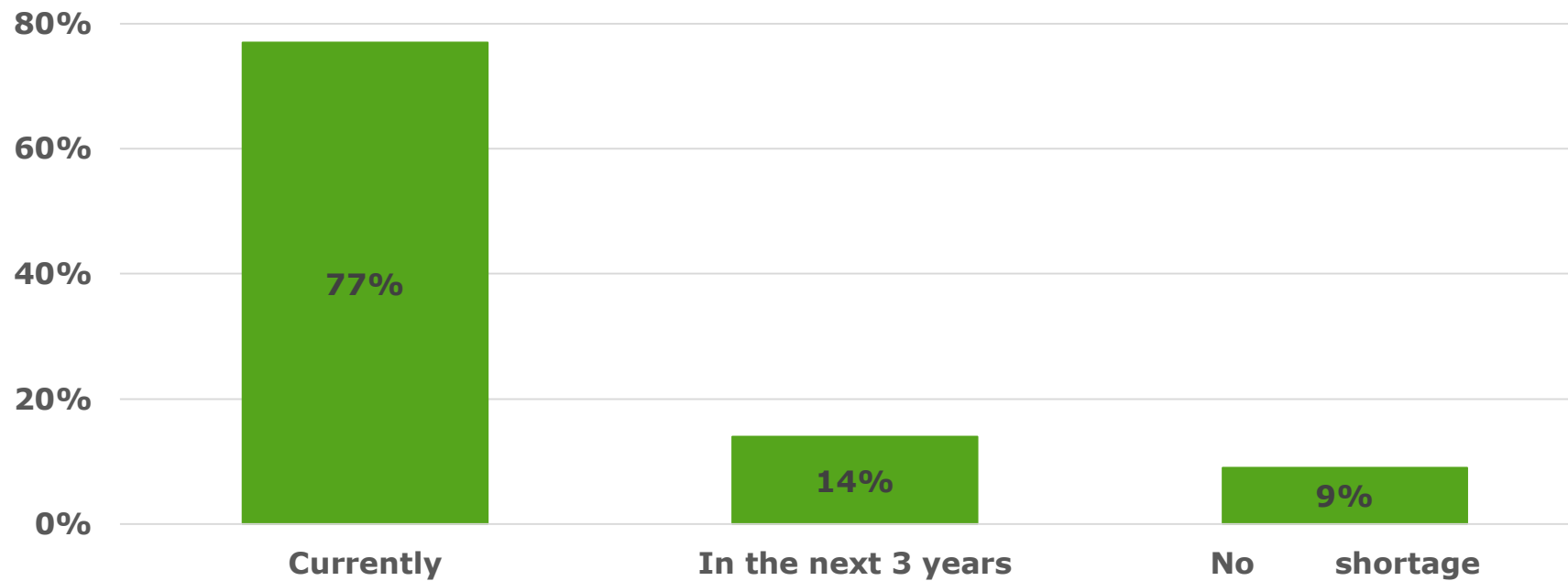
ON Semiconductor

TEL
TOKYO ELECTRON

SEMI - Deloitte Global Workforce Study

A talent shortage is upon us...

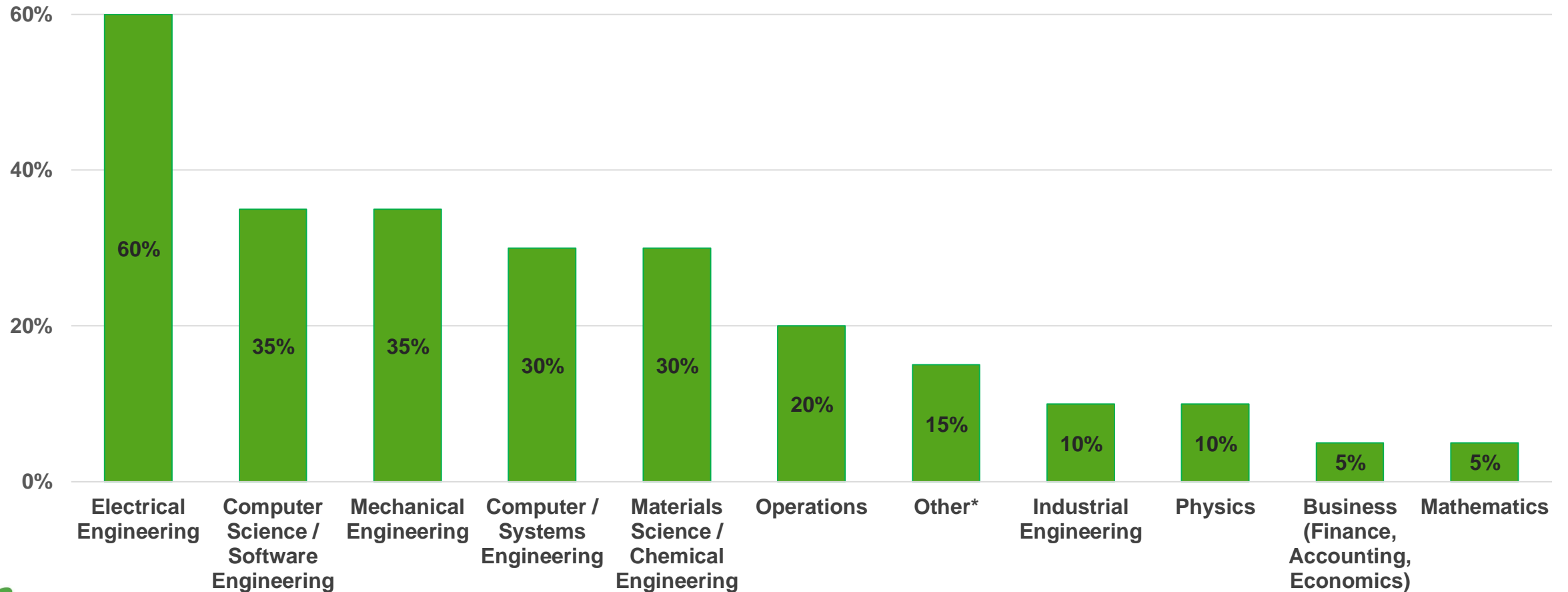
When do you think we will see a critical talent shortage?



We are experiencing an acute shortage of specific skills

SEMI – Deloitte Global Workforce Study

% of companies that have difficulty filling open positions by discipline

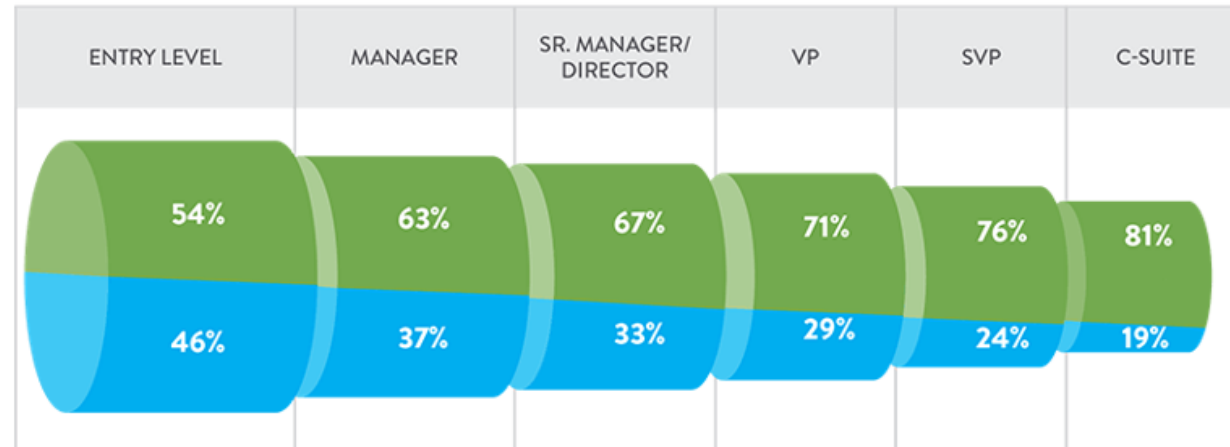


Diversity and Inclusion

- Validated broad member interest – a top workforce concern along with recruitment
- Many diverse interests (such as long standing societal concerns, equity, empowerment, rights, etc. etc.)
 - **SEMI will focus where we can have distinct impact**

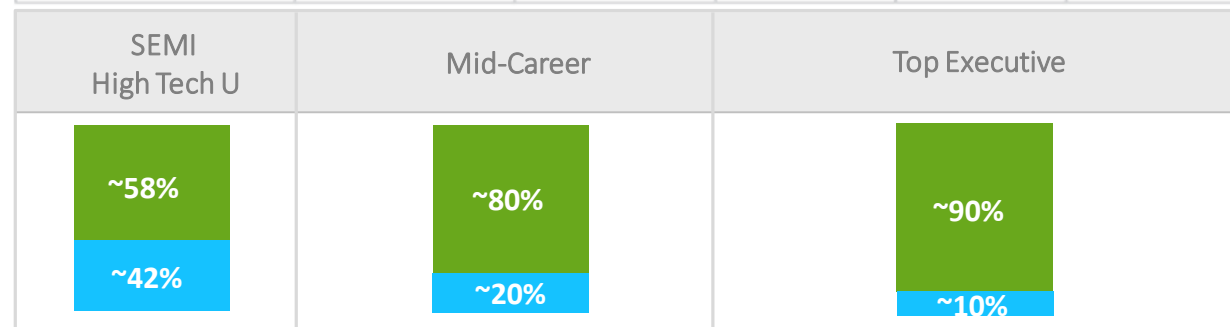
U.S. Corporations

Source: McKinsey & Company, Women in the Workplace 2016



Semiconductor Industry

SEMI Assumptions - Approximate



● Men ● Women

SEMI Workforce Development Council Europe

Connect

- Relevant business representatives from the industry under a common

Identify

- common skills gaps affecting electronics manufacturing supply chain

Highlight

- best practices and paths of action from the industry

Disseminate

- industry position on skills challenge & public policy recommendations

Expand

- Workforce development programmes with group members

Promote

- EU initiatives and opportunities towards group members



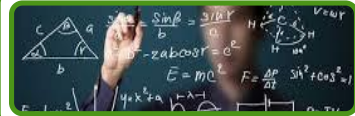
The Skills Challenge of European Electronics Manufacturing



Growing demand & raising skills bar in high-tech



Aging workforce in electronics manufacturing



Concerns about the quantity of STEM graduates



Challenging school-to-industry transition in STEM



Image of “manufacturing jobs”



Societal concerns: does technology replace manufacturing workers?

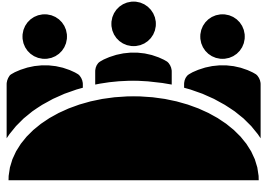


Global competition for talent



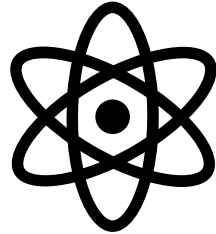
Low female participation in STEM

SEMI Workforce Development Initiatives



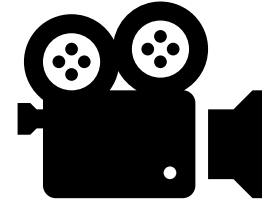
Workforce Advocacy/Policy

Influences policy and advocates for regional WFD needs with regulatory and governmental organizations.



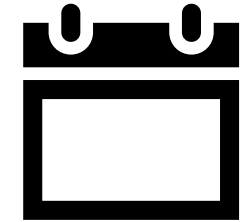
SEMI High Tech U

Engages future workforce in a three-day, STEM focused program taught by industry professionals.



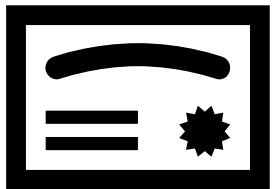
Industry Image Campaign

Educates and exposes the benefits of working in microelectronics industry.



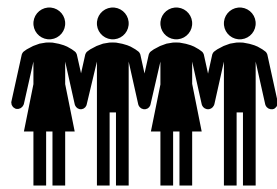
Workforce Pavilion at SEMICON/Events

Utilizes SEMICONs in a meaningful way to educate and recruit talent. Leverage other SEMI platforms and events to draw attention to workforce development



Industry Training Courses

Educates and elevates a capable workforce.



Diversity & Mentoring Initiatives

Works to establish gender parity and expand the talent pool. Mentoring programs will help develop and retain talent for the industry. Additionally, SEMI will participate and expand diversity and women-in-tech related program offerings.



Highschool & University Connections

Develops substantial relationships with program specific (engineering, physics, etc.) talent pool as they graduate and prepare to enter the workforce.

SEMI offices Workforce Development Councils to regionally tackle workforce development.

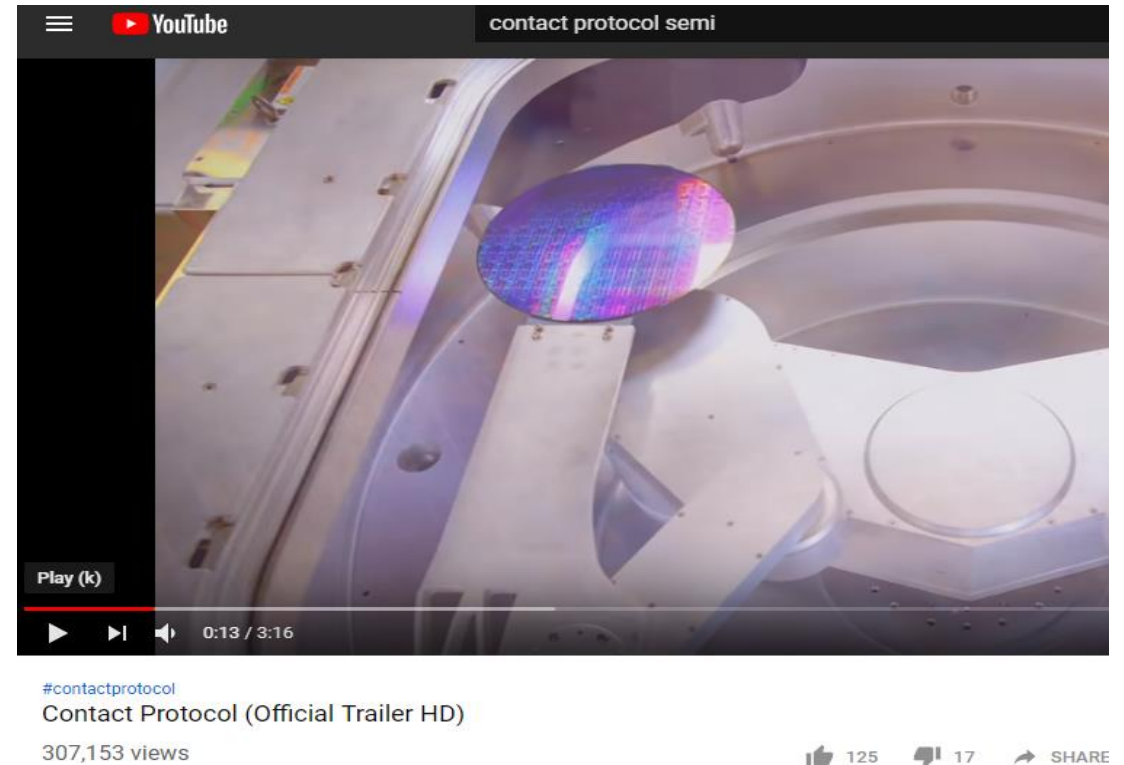
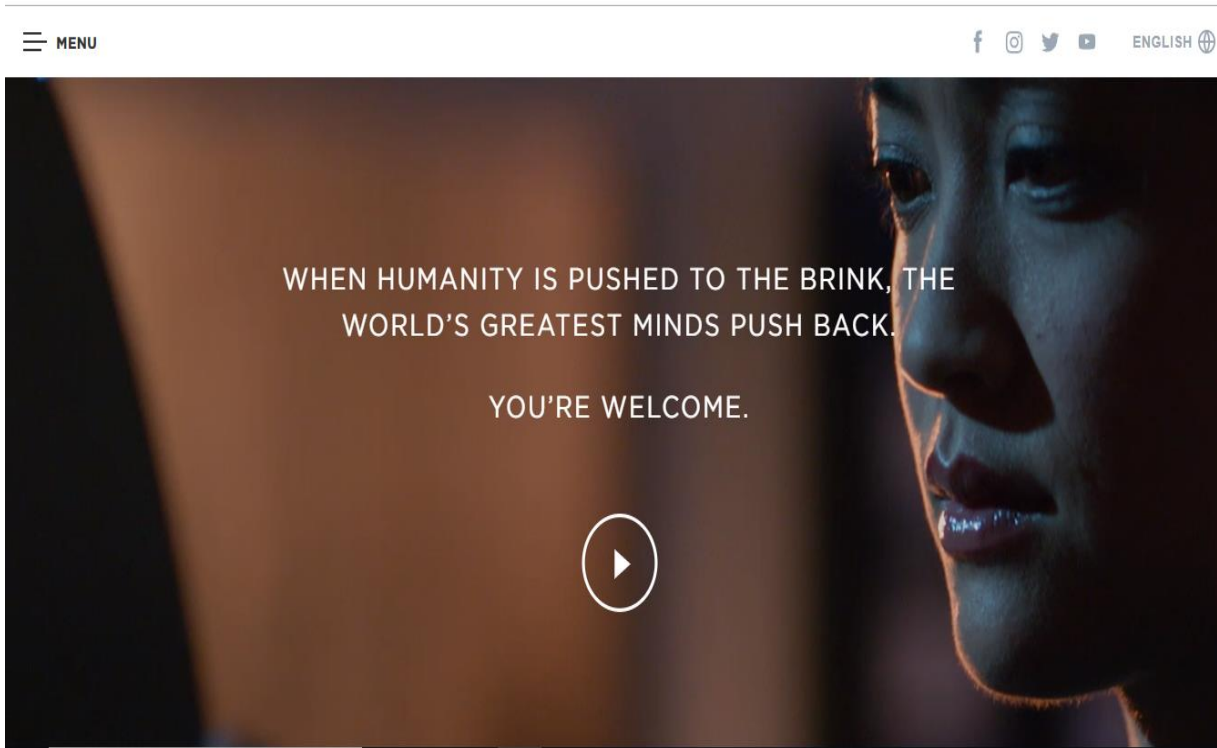
Initiatives are being developed as regionally appropriate.

SEMICON Europa Smart Workforce and Diversity Days



SEMI Industry Image Campaign: Contact Protocol

<https://www.youtube.com/watch?v=jWgwSTFibCg&>



Summary

- The semiconductor industry is poised to grow thanks to increasing market penetration into smart verticals
- But without the right skills-set, the growth will be limited
- SEMI as an umbrella association at global level is well-positioned to support its members' skills needs:
 - Industry direction & intelligence
 - Connecting (future) talent and SEMI members
 - Awareness raising at an early age, reach out to parents, promote diversity
 - Policy influence at EU-level



Thank you!

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